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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,735	06/20/2003	Bruce Beakley	TRLG002-US0	9837
7590	09/10/2004		EXAMINER JONES, JUDSON	
Patrick Stellitano 2803 Inridge Dr. Austin, TX 78745			ART UNIT 2834	PAPER NUMBER

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/600,735

Applicant(s)

BEAKLEY, BRUCE

Examiner

Judson H. Jones

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

Figures 1A and 1B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 8-10 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katsuki et al. 6,724,104 B2 in view of Komatsu et al. 6,281,644 B1. Katsuki et al. discloses a linear motor glide apparatus comprising a unitary bearing rail structure 23 as shown in figure 3 and as described in column 3 lines 45 ½ to 55 ½ with a coil assembly 26, 27 on a coil mounting member 24 as shown in figure 3 and as described in column 4 lines 7 ½ to 11 ½. Katsuki et al. shows two bearing assemblies in a front view in figure 3 but never shows the bearing assemblies in a side view. No more than two bearing assemblies are mentioned in the patent text. The two

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bearing assemblies (roller guides) appear to run the length of element 21. Komatsu et al. teaches placing bearing blocks on the corners of the moving element of a linear motor. Since Komatsu et al. and Katsuki et al. are from the same field of endeavor it would have been obvious at the time the invention was made for one of ordinary skill in the art to have utilized bearing blocks only on the corners of a linear motor glide apparatus in order to reduce the cost of the device.

In regard to claim 2, a coil mounting member made of any conventional material will inherently conduct heat away from the coil assembly.

In regard to claim 8, see Komatsu et al. column 3 lines 10-16.

In regard to claims 9 and 10, these claims are method claims but the method only involves providing the elements recited in the structure claims. Therefore these claims are rejected for the same reasons that the structure claims are rejected.

In regard to claim 16, see Katsuki et al. column 2 lines 10-24 and see the abstract of Komatsu et al.

In regard to claim 17-19, see Katsuki et al. column 4 lines 24-48 and see Katsuki et al. column 4 lines 13-36.

Claims 3, 5, 7, 11, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katsuki et al. as modified by Komatsu et al. as applied to claims 1 and 9 above, and further in view of Hayashi et al. 6,495,934 B1. Katsuki et al. as modified by Komatsu et al. discloses the linear motor apparatus but does not disclose the coefficient of thermal expansion of the connecting structure or of the coil. Hayashi et al. 6,495,934 B1 teaches making parts of the motor from materials with small coefficients of thermal expansion in order to prevent the deformation of the motor components at elevated temperature. Since Hayashi et al. and Katsuki et al. as

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modified by Komatsu et al. are from the same field of endeavor it would have been obvious at the time the invention was made for one of ordinary skill in the art to have utilized materials with low coefficients of thermal expansion in order to prevent the deformation of the motor components at elevated temperatures.

Claims 4, 6, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katsuki et al. as modified by Komatsu et al. and Hayashi et al. as applied to claims 3, 5, 11 and 13 above, and further in view of Teramachi 4,774,442 A. Katsuki et al. as modified by Komatsu et al. and Hayashi et al. discloses the motor apparatus but does not disclose allowing the adjustment of bearing blocks by using bolts to attach the blocks to the motor assembly. Teramachi teaches in column 3 lines 39-45 adjusting the clearance between the track rails and bearings by using bolts. Since Teramachi and Katsuki et al. as modified by Komatsu et al. and Hayashi et al. are from the same field of endeavor it would have been obvious at the time the invention was made for one of ordinary skill in the art to have utilized bolts to attach the bearing blocks to the linear motor in order to allow for adjustment of the clearance between the track rails and the bearings and to thus improve the performance of the motor.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katuski et al. in view of Komatsu et al., Hayashi et al. and Teramachi et al. Katsuki et al. as modified by Komatsu et al. and Hayashi et al. discloses the motor apparatus but does not disclose allowing the adjustment of bearing blocks by using bolts to attach the blocks to the motor assembly. Teramachi teaches in column 3 lines 39-45 adjusting the clearance between the track rails and bearings by using bolts. Since Teramachi and Katsuki et al. as modified by Komatsu et al. and Hayashi et al. are from the same field of endeavor it would have been obvious at the time the

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invention was made for one of ordinary skill in the art to have utilized bolts to attach the bearing blocks to the linear motor in order to allow for adjustment of the clearance between the track rails and the bearings and to thus improve the performance of the motor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judson H. Jones whose telephone number is 571-272-2025. The examiner can normally be reached on 8-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JHJ 9/4/2004



**THANH LAM  
PRIMARY EXAMINER**